| Ind | dex of | Claims | ; |
|-----|--------|--------|---|
| | | | |

| A | -1041 | NI- |
|-------------|--------------|------|
| Application | nu.oniroi | NO. |
| ~ppiioutioi | " OO 1141 O1 | 110. |
| | | |

10/647,985 Examiner

Date

Zeinab E. EL-Arini

Applicant(s)/Patent under Reexamination

SMITH ET AL.

Art Unit

1746

| √ | Rejected |
|----------|----------|
| = | Allowed |

(Through numeral) Cancelled Restricted

Non-Elected N Interference

Appeal Α 0 Objected

| Claim Date Image: Brown of the state of the st | | | | | | | | | | | | | | | | | | |
|--|-------------|----------|---------------|--|---|--|--------------|--|----------|--|--------------|-----|--------------|----------|----------|----------|----------|----------|
| The state of the | | _ | _ | | | | | | | | | | | | | | | |
| 1 | Cla | aim | <u> </u> | | | (| Date | 3 | | | | | Cla | im | | | | |
| Section Sect | Final | Original | 6 20 01 | | | | | | | | | | Final | Original | | | | |
| Section Sect | | | Y | | | | | | _ | \vdash | П | | | 51 | _ | | | ┢ |
| Simple S | | 2 | П | | | | Г | | | | | | | 52 | | | | Г |
| 5 | | | Ц | | | | | | | | | : | | 53 | | | | |
| Section Sect | | 4 | Ц | \Box | | | | | | | | | | | | | | |
| 1 | <u> </u> | 5 | Ц, | | | _ | | <u>.</u> | | | | . ! | | 55 | | | | |
| S | <u></u> | 6 | ¥ | Ш | | <u> </u> | | | | | L | | | | _ | | | L |
| 9 10 60 61 11 62 62 133 63 64 14 | | 1 | L., | \sqcup | | _ | ļ | _ | <u> </u> | _ | <u> </u> | | | | | | | L |
| 10 | | | Y | $\vdash \vdash$ | | | _ | <u> </u> | _ | <u>. </u> | <u> </u> | | | 58 | | | | L |
| 11 | <u> </u> | | Н | | | _ | <u> </u> | <u> </u> | _ | _ | _ | | | | | | | ┡ |
| 12 | | | ╌ | H | | _ | <u> </u> | <u> </u> | _ | | <u> </u> | | | 60 | | _ | _ | ▙ |
| 13 | | | + | \vdash | | ┝ | | - | ┢ | ┝ | ⊢ | | <u> </u> | 61 | | | | ⊬ |
| 14 | | | H | \vdash | | | \vdash | _ | | - | - | | - | 62 | | | | ⊢ |
| 15 | | 14 | + | \vdash | | | <u> </u> | - | | | \vdash | | | 64 | _ | _ | | ┝ |
| 1 | | 15 | 1 | ╁┼ | | \vdash | \vdash | \vdash | | - | - | | - | | _ | | - | ⊢ |
| 18 68 19 68 20 70 21 71 22 73 23 74 25 75 26 76 27 77 28 78 29 79 30 80 31 81 32 82 33 83 34 84 35 85 36 86 37 87 38 89 40 90 41 91 42 92 43 93 44 94 45 95 46 96 47 97 48 98 49 99 | \vdash | 18 | V | \vdash | | \vdash | | | - | ├ | | | | | | Н | | ⊢ |
| 18 68 19 68 20 70 21 71 22 73 23 74 25 75 26 76 27 77 28 78 29 79 30 80 31 81 32 82 33 83 34 84 35 85 36 86 37 87 38 89 40 90 41 91 42 92 43 93 44 94 45 95 46 96 47 97 48 98 49 99 | - | 17 | V | | | \vdash | \vdash | | \vdash | H | \vdash | | | 67 | | | | ┝ |
| 18 69 20 √ 70 21 71 22 72 23 73 24 74 25 75 26 76 27 77 28 79 30 80 31 81 32 82 33 83 34 84 35 85 36 86 37 87 38 88 39 90 40 90 41 91 42 92 43 94 44 94 45 95 46 96 47 97 48 98 | \vdash | 18 | _ | \vdash | | | | \vdash | | | ┢╾ | | | | | _ | _ | ╁ |
| 20 √ 70 21 71 22 72 23 73 24 74 25 75 26 76 27 77 28 79 30 80 31 81 32 82 33 83 34 84 35 85 36 86 37 87 38 88 39 90 40 90 41 91 42 92 43 94 44 94 45 95 46 96 47 97 48 98 | | 10 | V | \vdash | | ╁─ | | | \vdash | | ┝╴ | | | 69 | | | _ | ┢ |
| 21 71 22 72 23 73 24 74 25 75 26 76 27 77 28 78 29 79 30 80 31 81 32 82 33 83 34 84 35 85 36 86 37 87 38 89 40 90 41 91 42 92 43 94 44 94 45 95 46 96 47 97 48 98 | | 20 | ./ | \vdash | | \vdash | ┢═ | - | \vdash | \vdash | H | | | | | | | ┢╾ |
| 22 72 23 74 25 75 26 76 27 77 28 78 29 79 30 80 31 81 32 82 33 83 34 84 35 85 36 86 37 87 38 88 39 90 40 90 41 91 42 92 43 94 44 94 45 96 47 97 48 98 | | | | | | \vdash | \vdash | \vdash | - | _ | \vdash | | | 71 | | | | H |
| 24 74 25 75 26 76 27 77 28 78 29 79 30 80 31 81 32 82 33 83 34 84 35 85 36 86 37 87 38 88 39 89 40 90 41 91 42 92 43 94 45 95 46 96 47 97 48 98 | | | | Ħ | | \vdash | _ | H | | H | | | - | | | | _ | t |
| 24 74 25 75 26 76 27 77 28 78 29 79 30 80 31 81 32 82 33 83 34 84 35 85 36 86 37 87 38 88 39 89 40 90 41 91 42 92 43 94 45 95 46 96 47 97 48 98 | | 23 | | Ħ | | \vdash | | | | | | | | 73 | | | | ┢ |
| 25 75 26 76 27 77 28 78 29 79 30 80 31 81 32 82 33 83 34 84 35 85 36 86 37 87 38 88 39 89 40 90 41 91 42 92 43 93 44 94 45 95 46 96 47 97 48 98 | | 24 | | П | - | | | | | | | | | | | | | T |
| 26 76 27 77 28 78 29 79 30 80 31 81 32 82 33 83 34 84 35 85 36 86 37 87 38 88 39 89 40 90 41 91 42 92 43 94 45 95 46 96 47 97 48 98 | | 25 | | П | | Г | | | | | | 1 | | 75 | | | | Г |
| 28 78 29 79 30 80 31 81 32 82 33 83 34 84 35 85 36 86 37 87 38 88 39 89 40 90 41 91 42 92 43 93 44 94 45 95 46 96 47 97 48 98 49 99 | | 26 | | | | | | | | | | 1 | | 76 | | | | Г |
| 29 79 30 80 31 81 32 82 33 83 34 84 35 85 36 86 37 87 38 88 39 89 40 90 41 91 42 92 43 93 44 94 45 95 46 96 47 97 48 98 49 99 | | | | | | | | | | | |] | | | | | | |
| 30 80 31 81 32 82 33 83 34 84 35 85 36 86 37 87 38 88 39 89 40 90 41 91 42 92 43 93 44 94 45 95 46 96 47 97 48 98 49 99 | | 28 | L | | | | | | | | |] | | | | | | |
| 31 81 32 82 33 83 34 84 35 85 36 86 37 87 38 88 39 89 40 90 41 91 42 92 43 93 44 94 45 95 46 96 47 97 48 98 49 99 | L | | _ | Ш | | | | L. | L | | | | | | | | | L |
| 32 82 33 83 34 84 35 85 36 86 37 87 38 88 39 89 40 90 41 91 42 92 43 93 44 94 45 95 46 96 47 97 48 98 49 99 | | | _ | \sqcup | | | | | _ | _ | _ | Į | | | | | L | L |
| 33 83 34 84 35 85 36 86 37 87 38 88 39 89 40 90 41 91 42 92 43 93 44 94 45 95 46 96 47 97 48 98 49 99 | | | | \sqcup | | | | | | | _ | l | | | | _ | <u> </u> | L |
| 34 84 35 85 36 86 37 87 38 88 39 89 40 90 41 91 42 92 43 93 44 94 45 95 46 96 47 97 48 98 49 99 | <u> </u> | | | \sqcup | | _ | | | _ | L | _ | | | | | | L | L |
| 35 85 36 86 37 87 38 88 39 89 40 90 41 91 42 92 43 93 44 94 45 95 46 96 47 97 48 99 49 99 | <u> </u> | 33 | | - | _ | <u> </u> | | | _ | <u> </u> | _ | l | <u> </u> | | <u> </u> | | <u> </u> | L |
| 36 86 37 87 38 88 39 89 40 90 41 91 42 92 43 93 44 94 45 95 46 96 47 97 48 98 49 99 | <u> </u> | | ₩ | \vdash | | _ | | | <u> </u> | H | <u> </u> | ļ | | | | _ | \vdash | ⊢ |
| 37 87 38 88 39 89 40 90 41 91 42 92 43 93 44 94 45 95 46 96 47 97 48 98 49 99 | - | | \vdash | \vdash | | \vdash | | | - | \vdash | \vdash | 1 | <u> </u> | | \vdash | H | \vdash | \vdash |
| 38 88 39 90 40 91 41 91 42 92 43 93 44 94 45 95 46 96 47 97 48 98 49 99 | - | | \vdash | \vdash | _ | ├ | ├ | \vdash | \vdash | \vdash | ⊢ | ł | | 85 | \vdash | | \vdash | \vdash |
| 39 89 40 90 41 91 42 92 43 93 44 94 45 95 46 96 47 97 48 98 49 99 | | | \vdash | ┝╌┼ | _ | \vdash | \vdash | \vdash | \vdash | - | ├ | 1 | <u> </u> | | \vdash | <u> </u> | - | ⊢ |
| 40 90 41 91 42 92 43 93 44 94 45 95 46 96 47 97 48 98 49 99 | | | Н | \vdash | | ├─ | ┢ | | \vdash | \vdash | | 1 | | | \vdash | - | \vdash | \vdash |
| 41 91 42 92 43 93 44 94 45 95 46 96 47 97 48 98 49 99 | | | | ┝╾┼ | | \vdash | | \vdash | \vdash | \vdash | - | ł | <u> </u> | | H | | ┝ | ╁ |
| 42 92 43 93 44 94 45 95 46 96 47 97 48 98 49 99 | | | | H | | \vdash | \vdash | \vdash | Ë | \vdash | \vdash | 1 | \vdash | | \vdash | \vdash | \vdash | \vdash |
| 43 93 44 94 45 95 46 96 47 97 48 98 49 99 | | | - | \vdash | | \vdash | \vdash | \vdash | \vdash | | \vdash | ĺ | | | \vdash | \vdash | \vdash | \vdash |
| 44 94 45 95 46 96 47 97 48 98 49 99 | | | П | \vdash | | T | \vdash | \vdash | | | H | 1 | | 93 | Н | \vdash | \vdash | H |
| 45 95 96 96 97 48 98 99 99 | | | | \Box | | Г | Г | T | | | T | ĺ | \vdash | | Н | Н | H | T |
| 46 96 97 97 48 98 99 99 99 | | | | Н | | | \vdash | | ┢ | | t | ĺ | | | М | \vdash | \vdash | \vdash |
| 47 97 98 98 99 99 99 | | | | П | | | Γ | Г | Г | Г | | İ | | | П | | Г | Г |
| 48 98 99 | | 47 | | | | | | | | | | İ | | | | П | Г | Г |
| 49 99 99 | | 48 | | | | | | | | | |] | | 98 | | | | Г |
| 50 100 | | | | | | | | | | | |] | | 99 | | | | Γ |
| | | 50 | | Щ | | L | L_ | L | 匚 | | \Box |] | | 100 | | | | |

| 5 | 21111 | Ь, | | | | Jak | _ | | | |
|----------|----------------|----------|----------|-------------------|----------|----------|--------------|--|----------|----------|
| Final | Original | | | | | | | | | |
| | 51 | | | | | | | | | |
| - | 52 | \vdash | _ | \vdash | | _ | _ | \vdash | | \vdash |
| | 51 52 53 | | | H | | | \vdash | | \vdash | \vdash |
| | 53 | Ш | | lacksquare | | | | | | |
| | 54 55 | | | | | | | | | |
| | 55 | | | | | | | | | |
| | 56 | | | | | | | | | П |
| | 57 | ┝ | _ | \vdash | | \vdash | <u> </u> | | | Н |
| | 50 | - | _ | \vdash | | \vdash | \vdash | \vdash | _ | \vdash |
| | 58 | ┡ | _ | | | | ļ | | | |
| | 59 | 匚 | | | | | | | | |
| | 60 | | <u> </u> | | | | | | | |
| | 61 | | | | | | | | | |
| | 62 | | | | | | | | | |
| | 63 | ┢ | \vdash | Н | | \vdash | | | \vdash | \dashv |
| | 64 | \vdash | \vdash | \vdash | H | <u> </u> | \vdash | \vdash | <u> </u> | \vdash |
| | 04 | \vdash | <u> </u> | L. | | <u> </u> | \vdash | <u> </u> | <u> </u> | \vdash |
| | 65 | | | | | L | <u> </u> | L | | |
| | 65 66 | L | L | | L | | | L | L | ∟ |
| | 67 | | | | | | | | | |
| | 68 | | \vdash | | | | | | | |
| | 69 | - | - | | | _ | | | - | |
| | 70 | - | ⊢ | | - | ┝ | - | ┢ | \vdash | |
| | 70 | | <u> </u> | | | <u> </u> | | ļ | _ | \vdash |
| | 71 72 73 | _ | _ | | | _ | | | | |
| | 72 | | | | | | | | | |
| | 73 | | | | | | | | | |
| | 74 75 | | | | | | | | | |
| | 75 | <u> </u> | | | | \vdash | | | \vdash | |
| | 76 | - | \vdash | _ | - | \vdash | | _ | \vdash | |
| | 76 77 | | - | _ | <u> </u> | ⊢ | ├ | _ | \vdash | |
| | 111 | | _ | ⊢ | ⊢ | <u> </u> | | | | |
| | 78 | _ | <u> </u> | <u> </u> | <u> </u> | | | | <u> </u> | |
| | 79 | | | | | | | | | |
| | 80 | | | | | | | | | |
| | 81 | Г | | | Г | | | | | |
| | 82 | | \vdash | | \vdash | | | | | |
| | 82 83 | <u> </u> | \vdash | ┢ | \vdash | - | | \vdash | \vdash | |
| | 84 | ⊢ | - | - | - | ┝ | | - | - | |
| | 04 | \vdash | \vdash | \vdash | \vdash | ├ | - | <u> </u> | \vdash | H |
| | 85 | ⊢ | <u> </u> | ⊢ | <u> </u> | | <u> </u> | <u> </u> | <u> </u> | Ш |
| | 86 | oxdot | L | $ldsymbol{f eta}$ | L. | L | <u> </u> | | | |
| | 87 | L | L | | L_ | L | L | L | L | |
| | 88 89 | | | | | | | | | |
| | 89 | | | | | | | | | |
| | 90 | \vdash | t^- | \vdash | \vdash | Г | _ | Т | \vdash | \vdash |
| - | 91 | \vdash | \vdash | \vdash | \vdash | \vdash | \vdash | \vdash | \vdash | H |
| - | | - | \vdash | \vdash | \vdash | ⊢ | _ | \vdash | \vdash | Н |
| Ļ | 92 | \vdash | \vdash | \vdash | <u> </u> | ⊢- | <u> </u> | <u> </u> | <u> </u> | Ш |
| | 93 | <u> </u> | <u> </u> | 匚 | Ц. | L | | $ldsymbol{ldsymbol{ldsymbol{eta}}}$ | <u> </u> | |
| <u> </u> | 94 | L | L | L | L | L | L | L | L | Ll |
| | 95 | | Ī_ | | | | | | | |
| | 96 | Г | | Г | | | | Г | | |
| | 97 | | | \vdash | \vdash | \vdash | \vdash | \vdash | \vdash | H |
| | 98 | - | \vdash | \vdash | Η- | \vdash | \vdash | \vdash | \vdash | Н |
| \vdash | 30 | \vdash | - | - | — | <u> </u> | \vdash | \vdash | <u> </u> | Н |
| Ь | 99 | <u> </u> | <u> </u> | _ | L_ | <u> </u> | <u> </u> | Ш | <u> </u> | Ш |
| | 1 100 | | | 1 . | | | | | | |

| Cli | aim | | | | [| Date | e | | | |
|----------|------------|--|----------|----------|--------------|--|--------------|--|-------------------------------------|--|
| | _ | | | | | | | | | |
| <u></u> | Original | | | | | | | | | |
| Final | ij | | | | | | | | | |
| - | 0 | | | | | | | | | |
| | 101 | | - | ├- | | _ | \vdash | \vdash | | |
| — | 101 102 | | Н | | ├ | - | | \vdash | | - |
| \vdash | 103 | | | <u> </u> | \vdash | \vdash | ├ | - | | \vdash |
| | 103 | | | _ | ⊢ | \vdash | \vdash | \vdash | \vdash | |
| \vdash | 104 105 | | _ | | | <u> </u> | _ | | Ш | _ |
| <u> </u> | 105 | _ | | <u> </u> | <u> </u> | <u> </u> | _ | | Н | _ |
| <u> </u> | 106 | | | | _ | <u> </u> | | | | _ |
| | 107 | _ | | <u> </u> | <u> </u> | <u> </u> | _ | | | |
| <u> </u> | 108 | | | | _ | | | | | |
| | 109 | | | | | | | | L | L |
| | 110 | | | | | <u></u> | | | | |
| | 111 | | | | | | | | | |
| | 112 113 | | | L | | | | | | |
| | 113 | | | | | | | | | |
| | 114 | | | | | | | | | |
| | 115 | | | | | | | | | |
| | 116 | | \vdash | \vdash | | | | | Т | \vdash |
| | 117 | \vdash | \vdash | \vdash | | | | \vdash | _ | \vdash |
| | 118 | \vdash | \vdash | ┝ | | | | - | \vdash | - |
| | 119 | - | ├ | | | - | | ├— | | \vdash |
| | 120 | ⊢ | | \vdash | | | \vdash | \vdash | \vdash | \vdash |
| | 120 | ⊢ | ├- | ┝ | | - | \vdash | ⊢ | \vdash | |
| | 121 122 | <u> </u> | _ | _ | | | | _ | | _ |
| - | 122 | <u> </u> | | _ | _ | _ | ┝ | L | L. | _ |
| ļ | 123 | <u> </u> | | | | | _ | _ | | Ŀ |
| | 124 125 | _ | | | | <u> </u> | _ | _ | \vdash | _ |
| <u> </u> | 125 | _ | | _ | _ | <u> </u> | _ | _ | <u> </u> | _ |
| <u> </u> | 126 127 | <u> </u> | | | | | | <u>_</u> | L | _ |
| | 127 | | | | _ | | | | L. | _ |
| | 128 | | | | | | L | | | |
| | 129 | | | | | | | | | |
| | 130 | | | | | П | | | | |
| | 131 | | | | | | | | | |
| | 132 133 | | | | | | | | | |
| | 133 | | | | | | | | Г | |
| | 134 | | | | | | | T | | Г |
| | 135 | \vdash | Г | | | Г | \vdash | \vdash | | |
| | 136 | Н | Ι- | T | \vdash | | | | | |
| | 137 | \vdash | \vdash | \vdash | \vdash | | \vdash | \vdash | H | \vdash |
| | 138 | \vdash | \vdash | \vdash | <u> </u> | \vdash | \vdash | H | H | \vdash |
| <u> </u> | 139 | \vdash | ┢─ | \vdash | | \vdash | \vdash | ├- | \vdash | |
| | 140 | \vdash | \vdash | \vdash | \vdash | \vdash | \vdash | \vdash | \vdash | \vdash |
| <u> </u> | | \vdash | \vdash | \vdash | ⊢ | ⊢ | ⊢ | - | ├ | ⊢ |
| | 141 | \vdash | \vdash | ⊢ | \vdash | \vdash | ⊢ | \vdash | \vdash | \vdash |
| | 142 | - | ⊢ | \vdash | \vdash | ├ | ├ | | ├— | \vdash |
| | 143 | <u> </u> | <u> </u> | <u> </u> | ⊢ | ⊢ | ⊢ | <u> </u> | \vdash | ⊢ |
| | 144 | <u> </u> | <u> </u> | <u> </u> | ⊢ | ⊢ | ├ | <u> </u> | \vdash | ⊢ |
| | 145 | | <u> </u> | <u> </u> | — | <u> </u> | <u> </u> | <u> </u> | L- | |
| <u>.</u> | 146 | | <u> </u> | | <u> </u> | ldash | <u> </u> | $ldsymbol{f eta}$ | $ldsymbol{ldsymbol{ldsymbol{eta}}}$ | _ |
| L | 147 | | | | 匚 | | | | L. | |
| | 148 | | | | | | | | | |
| | 149 | L | Ĺ | L | L | L | L | | | |
| | 150 | | | | | 1 | | | | |